824 The most common of the Hanashiro trees are (1) the banyan or gajimaru, or yōsu. This tree is a common sight with its long
[731] roots growing around and through the stone fences. The tree with its roots bracing the stone fences is excellent typhoon protection for the village. (2) The usuku (Japanese scientific name, the akou) resembles the gajimaru in appearance and serves the same purpose. The fukugi (Garcinia spicata Hook) and an occasional cycad
[417] are common windbreaks. These trees are almost invariably in combination with stone fences, made of blocks, or with fences made of loose stones which have settled and been bound together by small plant roots. Village typhoon protection is a simple but effective combination of stone, shrubs, and trees. There is also an occasional kuroki
[534] (kurchi in Okinawan), from whose trunk the samisen, the stringed musical instrument, is made, and the palm (shuro).

There are wild plants in each of the areas but their importance has also declined. Among these is the pandanus (the adan, Japanese scientific name, the takonoki). This plant was plentiful before the war, but is now scarce except in the mountain area. It can occasionally be seen in genya land or in small clumps on an outcrop. The blades of the pandanus are long and hard, with a row of spines down both sides of the blade. It has had several uses. Formerly it was the common material for making slippers (zori), hats, cigarette cases, and hand-
[463] bags. These home industries have all but disappeared, but old people
[887] occasionally do a little. In preparing the pandanus blades for use, the thorns are removed and several strips are made. These are then boiled, dried, and smoothed out. Then they are woven into the desired pattern. A first class pandanus blade is about 5 feet long. In the
[782] celebration of O-Bon, the fruit of the pandanus may be offered as food to the ancestors.

Another plant occasionally used is the getto, known also in Okinawa as sannin or muchigasa. Its chief use is in the festival of the 8th day of the 12th lunar month. At this time, rice cakes (mochi) are wrapped up in its long and wide and flexible fibres. These wrappings, often made by children, are hung from the ceiling or from the wall. The stem of this plant was much used in the past for rope.

824 The nigana (njana in Okinawan, Ixeris dentata Nakai) is still
262 used in this area as a food and medicine. It has an exceedingly bitter
757 root, about 1/8 of an inch in diameter in a mature plant. The root is put in hot water, and the liquid drunk as a stomach medicine. The leaves, not so bitter as the root, have a sour, slightly bitter taste. They are often served with the white cuttlefish (shiroi-ikka).

The ōbako (known in Okinawan as the hirawakusa or hirawagusa, Plantago Asiatica L, "Japanese ribwort") is used as a medicine and as a food. When vegetables are scarce, it is eaten as a green. As a medicine, the leaf is heated over a fire and the hot leaf is then pressed over a swelling.

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Moxa (mogusa in Japanese, fuchiba in Okinawan) in the traditional Chinese and Japanese pharmacopoeia, had considerable former importance. In powdered form, it is placed on a swelling or painful part, which is cauterized by burning the moxa with a charcoal stick or a hot piece of metal. Moxa can be bought, packed and prepared in Japan, at most Okinawan village stores. But wild moxa is not used for this purpose. Formerly a brew was made of the wild plant and drunk for bringing down a fever. It is still used with the yagi, another plant, as a broth. Now aspirin, also obtainable at village shops is commonly taken for these ills.

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These plants are now nearly forgotten. In Hanashiro only the nigana and mogusa were remembered. In Minatogawa, the situation was the same. In Nagamo, a few slippers from the pandanus are still made. The virtual disappearance of home industries based on the pandanus is the result of a diminished supply and in part to loss of skills and failure of a younger generation to acquire them either because of the attraction of more exciting occupations or to lack of interest. This is not meant as a generalization. Home industries based on the use of uncultivated plants, has not vanished from all parts of Okinawa. Activity changes from locality to locality, even when these are close together. Slipper production from the pandanus has practically disappeared in Minatogawa, but across the river in the village of Horikawa they are still made.

Plant	Hanashiro	Minatogawa-Nagamo	Matsuda
Pandanus (adan)	Scarce, not used	Some slippers made	Not used
Nigana	Root boiled and used as a medicine		Broth for stomach and headaches.
Ubako	Not used	For swellings; hot leaf used as a poultice.	Not used [757]
Moxa (mogusa)	Used as in Minatogawa	Wild plant boiled, brew used for bringing down fever. Powdered form purchased.	Used in combination with another plant, the yagi, resulting broth used for general complaints. [757]

434 593 The money earned by women in the marketing of the fish, after deduction of travel expenses, becomes part of the family funds. Women in the fishing village have custody of the family money, due to frequent and prolonged absence of their husbands. This is an unusual practice, for in the agricultural and stonecutting areas of the village the husband handles the money, with the exception of a few yen which the wife may have at home to meet incidental expenses. The custody of the money (much made over by some observers) has no special cultural significance in my observation. It is merely a convenience, based on custom and occupation. Most earnings of husband and wife are in a common fund, though older children may handle their own money.

6

Other Activities Associated with Fishing

251 [439] There is some local drying of fish for home use and export. Of the common fish, the most frequently dried are the mackerel, the swordfish, and the shark. Shark fins are dried for export to Japan; before the war, they were also sent to China. The small amounts dried in local villages are accumulated in places like Naha for shipment. Drying processes are of the simplest. The fish may be laid out on a piece of canvas on the ground in front of the house, an operation which creates a stench and an overwhelming concentration of the blow fly population. Racks may be improvised. Their ends, made of odd pieces of wood, support thin bamboo poles laid parallel, on which the fish are put to dry. Sometimes fish are hung on a line. If the weather is good, they dry in two or three weeks, but rain quickly produces spoilage if the fish are not taken in immediately. The mackerel when dried may be heated up by placing a piece over the open fire, then rolled between the palms to see if it has been heated enough, torn into shreds, and put on a plate. Occasionally a poor family of non-fishing people, or a widow, purchases whole fish or backs or fins to dry for home use or resale.

278 825 Certain fish are valued as medicines. Their scarcity in agricultural villages prevents any but the most casual use. In Minatogawa, the commonest fish used as medicines are the lobster, the white cuttle fish, and the carp (koi), though the latter fish is rare here.

[252] The whole lobster is put into boiling water. After a few minutes, this broth, which is the medicine, is drained off, and the lobster is cracked open and heated, this time for preparation as a food. The broth, which is regarded as very disagreeable, is taken for a variety of ailments. Its commonest use is as a laxative, although it is also tak for swellings, boils, or gatherings of any kind (haremono), for pains in the small of the back and the loin, or for a cold. The lobster broth is regarded as a very effective medicine. A white cuttlefish soup is put to similar use. The carp is boiled in water and the broth is drunk for fevers. The carp may also be grown in village ponds. 259

In Hanashiro, the fish were raised for sale by the young men's association. The supply of fish is too uncertain and too seasonal for these remedies to be an effective part of the traditional medicine. Like the native plants, and many of the traditional medical practices, they are yielding to the drugs which can be found in the small village shops: stomach and headache powders, eye lotions, aspirin, and other pharmaceuticals and patent medicines.

The economic and occupational organization of village fishing is very informal. Partnerships are made on a basis of friendship and continue so until one party, for any reason, decides to leave. There are about 40 of these partnerships among the 120 odd adult fishermen.[2] The fishermen of the village also have a fisherman's association (suisankumiai) similar in function to the agricultural associations which the Japanese instituted throughout the empire. This association has a head (suisankumiaichō). Like so many official and administrative jobs in a village, these offices are thrust upon the man. He seldom seeks them. In the larger places where there is more remuneration, the man might seek the job. The head of the association is chosen by the fishermen of the village. He receives Y10 a month for each fisherman he represents. This is a supplementary job, as he could not exist on this sum. Lack of cash prevents any ambitious services to the membership. The association buys and sells gas and oil, nets, lines, hooks, and other necessary items which have been imported either from the United States or from Japan. Occasionally, the association has sufficient funds for small temporary loans for purchasing imported gear, loans from Y100 to Y 500 for a period of a week or two. The main function of the association is the exchange of information between the local head and representatives from the larger association in Naha. This becomes a study of the daily market demands; the information provided is a guide to fishermen in meeting the demand. This is all very informal. The head of the association circulates among the fishermen, giving them tips on what to expect and how prices are going.

7

The Rough Language of Hinatogawa

The Hinatogawans have one characteristic which is not shared by their agricultural neighbors of Nagano, nor indeed by any of the agricultural villages. This is their rough (arai) language, so described by Hinatogawans with a certain amount of pride. This language, if used in the other village, would be considered insulting. It is notable for the freedom with which nicknames, some funny, some disparaging, some pointed at infirmities, are used.

2 The word used here is kumiai but actually these partnerships do not have the organized co-operative character that this word usually implies when used in an economic sense.

1: Glacken E-5 (1951-1952) 1953 AC7 Okinawa AC7

Nevertheless, to superficial observation at least, villagers seem to enjoy good health. Most of them are energetic. Obesity is very unusual. The average man or woman of any age has little spare flesh. The most frequent complaints are of dysentery, constipation, colds, boils and swellings, and intestinal parasites. There are signs of malnutrition in the distended bellies of some small children, probably due to the unrelieved and starchy diet of the sweet potato,[6] with extremely few animal fats and proteins.

The sores and scabs on the heads, faces, arms, and legs of infants and young children are still the curse of childhood, conditions made worse by the flies which swarm around them. (In summer, I have seen as many as 20 flies on the face of a sleeping child without a trace of any muscular reaction). There are few Okinawans today who do not bear the scars of these sores of infancy, especially on the scalp. (Young men are sensitive about this and it is one reason also for keeping the hair long). Younger parents now are beginning to use various disinfecting powders and talcs to prevent these sores (which look like impetigo) and seem to have abandoned the attitude of a previous generation that these were childhood experiences to be endured. Much could be done to eliminate these diseases of childhood by a campaign in which local groups like the Women's Association and the public health authorities joined.

In the summer months, Jap B encephalitis (known as nūen) is very much dreaded. Some villagers had only a vague idea that it was a brain fever and a few knew that the mosquito was the vector.

According to residents of each of the villages, no cases of leprosy had been discovered in recent years. This disease is also dreaded and I doubt that an attempt would be made to conceal a case.

Young people have uncommonly beautiful, evenly spaced, white teeth. This seems to have been an Okinawan characteristic for a long time, as Basil Hall commented upon it 135 years ago. Around the late teens or early twenties, the teeth decay, and there are many extractions and replacements with gold or steel false teeth. Some extractions are intentional, especially among young girls who believe that a gold tooth sets them apart and adds to beauty. But I am convinced that this is of minor importance as an explanation. Okinawans

6 I am not acquainted with any analyses of the composition of the Okinawan sweet potato. In laboratory tests of an improved high-starch American variety, the composition when ground for starch was: moisture, 64.5%; starch, 25.5%; sugars, 2.8%; crude protein, 1.5%; pectic substances, 2.2%; crude fat, 0.6%; mineral matter, 0.9%; other, 2%. Sweet potato carotene can be readily converted to Vitamin A. See Dawson, P. R., Greathouse, L. H., and Gordon, W. O. Sweet potatoes: more than starch. In: Crops in peace and war. (U. S. Dept. of Agric., The yearbook of agriculture 1950-51) Washington, 195-203. Ref. on 195, 201.

Okinawans

164 blame tooth decay on the brown sugar. It may be diet or water.
[153] Use of tooth brushes varies considerably with individuals and
[515] families.

The standard of cleanliness in Okinawan homes is not high,
515 but this cannot be ascribed to indifference. One should constantly
511 bear in mind that it is easy to keep clean with plenty of soap, showers, hot running water, washing machines, and flush toilets.

9

Native Medicine

278 The native medicine has already been referred to in the discussion of fish and wild plants used as medicines. Their use has declined with growing reliance on manufactured drugs and pharmaceuticals.

[157] The golden needle (kinbari) is still used by rural doctors (yabu)
[159] in the treatment of inflamations of the joints and rheumatism. There was one such doctor in Minatogawa, but ordinarily he is called only when real medical attention is not available.

The needle is scarcely thicker than a horse hair. It is encased
[413] in a shaft about 2 3/8 inches long. The grip or base of the needle is 3/4 of an inch long and the needle itself 1 7/8 inches. The needle is tapped and gradually worked into the affected part, and a length from 3/4 to one inch is broken off and allowed to remain in the body and circulate to effect its curative powers.

Blood letting is still practiced, often by the individual himself. Thin cuts are made with a razor, generally on the forehead above the eyebrows and slanting toward the bridge of the nose. This is done to relieve headaches and general pains and may be resorted to after aspirin has failed to relieve a headache. On a close look, one can often observe the slight, thin, long scars, which look like tiny wrinkles, resulting from these slashes. During the operation, a sake cup is held up to the place being cut. The cup may even have a little sake in it. When done by a native doctor, the blood may be sucked through a small tube and allowed to drip into a sake cup.

Cauterisation using moguse (moxa) also is still common. One can frequently see scar tissue, the results of burning moguse on the flesh, usually in the area around the wrist. Moguse is applied with glowing charcoal sticks, burning thread, or tobacco. It is used for no specific complaint, but as a counter-irritant cureall for a wide variety of ailments.

Acupuncture apparently is little used now. Formerly an area was
[386] pricked with a needle, or a series of needles brought to a point, and an indigo dye applied. One can observe these round spots, circles of dots, occasionally on the shoulders and the backs of older people. These should not be confused with tattooing.

2:Maretzki & Maretzki E-5 (1954-1955) 1963 AC7 Okinawa AC7
Taira

diseases seemed to be below the expected rate for Okinawa, in general, and we had the impression that Taira people are healthy on the whole. Only one case of leprosy, which had been removed to a special hospital on the island of Yagaji, was reported from Taira.

Among the children there were frequent complaints of intestinal diseases. Most children seem to lodge a variety of parasites, mostly hookworms and tapeworms, and many were subject to skin ailments. One girl had a severe case of what was thought by the nurse to be congenital syphilis. The skin of her whole body was covered with sores which were a constant source of irritation. This 4-year-old never appeared in the company of children other than her younger sister. She would stand in front of her house, her face swollen, her head stooped from discomfort and embarrassment. Almost all children have impetigo and various kinds of rashes. During the summer these cover their faces and parts of the body. Almost all have marks of boils which have plagued them in the course of years.

Because sickness is always a threat, it creates fear, and any explanation which may restore some hope is important knowledge. Although some Western or modern theories about disease have been introduced recently through the school and the village nurse, they filter into every house only slowly and do not materially affect what has been handed down as popular knowledge from older members of each household. Most Taira people are probably quite eclectic in their beliefs as well as in their choice of treatments, so that it would be difficult to ascribe to them any single body of theory of disease.

Home remedies, often applied by old women, are widespread. The most popular ones are blood letting and the use of *moxa* cautery. Whenever people agree that there is "bad" blood in an adult's or child's system, it must be removed. There are many phenomena which are accounted for by the presence of "bad" blood. Visible signs such as eczema of the skin or swellings are such indications, but malfunctioning of certain organs, the stomach, liver, kidneys, can also call for the removal of "bad" blood. Mothers expose infants as young as five days to the treatment, which may be preventive as well as curative. Pointing to a bluish green area on the infant's back (not the mongoloid spot), whether real or imagined, the mother swabs the area with sake before she or the grandmother make numerous ¼-inch incisions with a razor. After the blood starts to ooze out of the tiny wounds, more sake is rubbed into the skin. The mixture of blood and sake is caught and rubbed on again and again until all the undesirable blood has been drained.

So many Taira babies have eczema that this treatment takes place

757 [854] [164] [232] [578] frequently and may be repeated as many as four times during the first year of a child's life. An older child occasionally undergoes this treatment for a case of violent impetigo. Even a horse may be bled in this way for loss of appetite or other symptoms of disease.

A woman whose face had been struck in an unusual display of temper underwent a blood letting soon after a swelling appeared. Her neighbor from across the street, a farmer like everyone else, sterilized her cheek with iodine and then cut it with a razor until the blood flowed freely. After a night's rest, the woman appeared outside her house without any signs of swelling and seemingly recovered.

753 776 769 775 [764] As was pointed out previously, many diseases are believed to be caused by supernatural forces: the ancestor spirits, spirits of those who have just died, and natural deities and evil spirits who wander around at night. The ancestors expect proper respect and attention and in general are benevolent unless neglected. Spirits of those who have recently died are most dangerous if the deceased is from another village. For deceased villagers one is careful to purify oneself after the funeral. The doors of each house are shut at night to protect against the evil spirits of the night air. Disease is less frequently caused by natural deities who have been neglected or mistreated.

755 756 [787] In case of sickness or other unfortunate events in the family, somebody may go to consult the *yuta*, a shaman who communicates with the supernatural. She discovers the cause of misfortune with the help of rice oracles and through powers of divination received through visions and hallucinations. There is no *yuta* living in Taira now, so that people have to travel to the other side of the island, an hour or more on foot, if they want to learn about the source of some evil. Taira people make many such trips to consult this shamanistic specialist. The most common cause of misfortune discovered by the *yuta* is neglect of ceremonies to the ancestral gods or, less frequently, the neglect of ceremonies to the natural deities. Although the *yuta* stands in no direct connection with the high priestess, she may suggest that her client ask the priestess for special prayers to rectify the negligence. In such cases, then, the competence of individuals in the family may not be adequate to deal with the ancestral world, and the priestess enters into family religion.

[769] [793]

597 755 769 [796] Some Taira parents still find an adoptive parent for a sickly child in the belief that his own ancestors have caused bad health, and that this can only be remedied by making a formal arrangement which transfers ancestral responsibility for the child to another family. The child remains with his own parents and only visits his foster parents during the New Year and the midsummer Buddhist *Bon* Festival, which honors ancestors, and perhaps at one or two other occasions during the year.

2:Maretzki & Maretzki E-5 (1954-1955) 1963 AC7 Okinawa AC7
Taira

year. On these occasions his parents take gifts of tea, noodles, and whatever else they can spare to the foster parents. During their visit the foster parents present the gift as an offering on the ancestral shrine and pray to their own ancestors, the guardians of the foster child. It is believed that this may help to offset the adverse effects of the child's own ancestors.

In spite of some treatments, such as blood letting and moxa cautery, which seem harsh to the unaccustomed observer, Taira people are extremely concerned about their sick. Illness, and most of all the need to remove the patient to the local dispensary or to a hospital in town, involves the whole family. No one likes to leave a sick person alone. His family and friends attend to him in such numbers that the small rooms are never large enough to hold all. The security given in everyday life by the presence of relatives and neighbors in the village continues during the critical period of illness. In the case of a fisherman from the south who was washed ashore in his boat after a storm, township officials kept the man continuous company in his dispensary room even though he was close to death. Female relatives cook meals and look after the comfort of a hospitalized person. This means that a young girl or an older woman will leave her usual work for days or weeks to attend the patient.

Because of intimacy in the home and visits to the sick, children are quite familiar with illness. A mother who has to go to the hospital takes her youngest child with her. After burning moxa weeds on her skin for two weeks had failed to cure a nephritic condition, one woman went to the hospital in town, taking her 8-months-old daughter although she did not have enough milk to nurse. The infant had to be given bottled milk prepared from cans. Meanwhile the older children remained under the care of their father.

There is, however, little concern with children who have minor ailments. A school child may be excused from attending classes. In one case a boy stayed home from school with stomach pains. He was happily playing with younger children in the street. One of the adult villagers walked past, stopped after seeing him, and inquired: "Why aren't you in school today?" When told by the boy that he had an upset stomach, the man ordered him to go home right away and stay inside or go to school. The boy's mother, although aware of her son's discomfort, did not pay any special attention to it.

Preventive medicine is officially the responsibility of the public health nurse. She advises people on proper preventive care, inocculates children against whooping cough, diphtheria, and other diseases. She also acts as an advisor to mothers on child care and occasionally helps with a birth if the doctor is unavailable. If a case is diagnosed as

744 tuberculosis, the public health nurse teaches the family how to treat the patient in the home by giving him rest and drugs provided through her. Isolation, though recommended, is not carried out effectively, as might be expected from the general treatment of sick in the village.

744 759 Like most public offices in Okinawa, the nurse's carries with it a large load of administrative duties. Between these and attending meetings and lectures at Nago hospital, there is relatively little time to cover the long distances between villages. Taira is fortunate to be the residence of the nurse, and when occasionally a nurse from another township comes to help her with inocculations, the children crowd around her and say "We want 'our' nurse to do it."

743 759 758 [844] The dispensary, or small hospital, in Taira is owned and run by a former medical corps man in the Japanese Army, referred to as "doctor." After the war the government gave permission to a number of former army medical personnel to practice on a limited scale in the villages. The Taira practitioner takes the place of a midwife, gives first aid, and diagnoses simple illnesses. If there are no complications, a patient requesting medical care may be kept at the dispensary, where a family member and the doctor's "nurse," a young female servant, attend to all his needs. If the doctor is confronted with a complicated birth or a case requiring surgical skill, he refers the patient to a private clinic in Nago or to the public hospital there. The township gives [657] financial aid to the doctor to maintain his establishment.

●757 [278] Penicillin has become the doctor's stock in trade, and other antibiotics and drugs are liberally administered via the hypodermic needle. But the doctor does not restrict himself entirely to the use of recognized Western medicines and practices. He may recommend special [262] diets to which people have resorted for a long time, such as goat soup, [759] which is believed to cure colds. Although the doctor has a high status in the community, most persons do not rely on his advice alone but resort to other practitioners and their remedies.

[759] Until a few years ago a popular medical practitioner, the bush doctor, resided in Taira. After his death nobody took over his work, and now many people have to travel far to receive treatment from a bush doctor in another village. His methods primarily include the use of moxa cautery, burning mogusa weed on the patient's skin, and accupuncture by the use of a fine golden needle. He may also prescribe a certain diet and the use of special herbal remedies, which the patient prepares for himself. Those who have great confidence in the bush doctor's competence, particularly older persons, do not consult the Taira doctor at all.

758 In all their dealings with sickness and its prevention, Taira people are severely handicapped by their economic conditions. Even families

2:Maretzki & Maretzki E-5 (1954-1955) 1963 AC7 Okinawa AC7
Taira

who have accepted them cannot afford to buy the recommended drugs. Furthermore, the choice between the bush doctor and the trained medical men in town is sometimes determined by lack of money to pay for the more expensive services.

Cleanliness of the village and general sanitation are theoretically under township control. Except for superficial biannual inspections, nothing much is done about them. Perhaps the Women's Association, once they carry out plans to take over this function, will be more effective.

There are several cases of physically deformed, mentally deficient, and mentally ill persons. A young man of about 20 years, born as an idiot or imbecile, lives in the back of his parents' house, protected from the gaze of outsiders. His family provides well for him, and when no stranger is around to embarrass the family, the grandfather may take him out to attend a village event. Another young man, who was normal, one day began to frighten his family and eventually the whole village by outbursts of violence. He attacked other persons and property. Nobody really knew how to cope with the situation, since the single mental hospital in Okinawa could not keep him longer than six months, and everybody realized that he was sick, not evil minded, when he broke bottles and other glassware in the village store. The family tried religious treatment and locked the man up but never for long, for he had intermittent periods of calm and seemingly rational behavior. Another man, during a busy day, complained of sudden headaches. Soon afterward he became severely depressed and attempted to commit suicide, quite an infrequent phenomenon in the Okinawan village.

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Chapter 10

Formal Education

The Japanese school system, which was introduced to Okinawa in the 1880's, reached Taira by 1891. At that time a small school was established in the village. Some of its early graduates are still alive and re-

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855 the mother becomes pregnant. Usually, however, weaning is not
[262] started in earnest until the mother is three months pregnant.

If the infant has a fever or "bad color," he may be subjected to an-
854 other painful experience, blood letting. Incisions are made on those
757 parts of the body which are thought to be affected, and blood is drawn and caught in a cup. The area is washed with sake. The mother often suckles the baby and holds him while the grandmother or some other older person performs the operation.

854 Babies are diapered and swaddled until they are about a year old. For the first two months their wet and soiled diapers are changed frequently; however, as time goes on, less attention is paid to wet diapers, although those soiled from excreta are promptly changed. Infants are checked often during the raw winter days, but because they are bundled so heavily, there is hardly any danger of their contracting colds as their
[164] mothers fear. Severe urine burns and annoying diaper rash are more common than colds among young babies.

[855] Although care is taken to keep the infant as clean as possible during the first year of his life, this attitude changes as the child grows older.
[594] This is in large part due to the mother's inability to devote much time to her offspring once she has resumed full participation in economics activities. Depending on the season of the year, babies are bathed from
[744] every third or fourth day to once a week. They are bathed almost daily during the first two months of their lives as a result of the insistence of the village nurse. Water is heated on the kitchen hearth and poured into a small washpan. Mothers test the warmth of the water by immersing their arms up to the elbows and adding cold or hot water as they see fit. Soap is gently applied either with a soft washcloth or with the hands and rinsed off by splashing. On chilly winter days the bath takes place indoors, but on the hot sunny days it takes place right outside the kitchen door. In drying the baby, the mother places him in a large towel and pats the dampness from his body. She is careful to dry the skin at the joints where rash is likely to erupt. Except for the very poor, all families keep a bottle of talcum powder, which is applied right after the bath. Throughout the bath, the mother talks softly to the baby, smiling and tickling him. The atmosphere of the bath at this
[855] time contrasts sharply with that of a later time when the child is 2 and 3 years old.

863 Although there is hardly any possibility that the infant at this time would be able to smear himself with excreta, the opportunity for doing so is present later when he no longer wears diapers but is still untrained. It rarely happens, as the child is almost constantly watched by a caretaker. One mother reported disgustedly that her infant smeared

Table I, Cont'd.

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Crop	Tsubo Prewar	Tsubo Postwar	Comments
Green peas	80	--	None now due to rats.
Giant radish	50	50	Sell half; use the rest in soups.
Burdock root	--	50	Sell 90%; use only at home for feasts.
Carrots	1	5	Sell half the crop.
Dryland taro	--	20	
Irish potatoes	--	50	Winter crop; seed from Hokkaido.
Cucumbers	1-2	50	Prewar, all used at home. Now sell 90% at about ¥10 per 'kin'.
Chives	1	1	Always use in soup. Raise for home use only.
Wax melon	50	50	Sold half in Itoman prewar; now sell same amount in Naha.
Pumpkins	1	1	Entirely for home use then and now.
Kidney beans	100	100	Then and now entirely for home use, in 'gohan' and 'miso'.
Cabbage	--	50	Sell 90% at ¥2-7 per 'kin'.
Eggplant	--	4-5 stalks	For occasional home use.
Green onion	--	10	Entirely for home use, in soups, etc.
Chinese cabbage	--	20	Sell over two-thirds.
Bitter melon	--	5	Mainly for home use.
Mustard cabbage	--	3	Sell half. Pickle temporarily with salt for home use. [251]
Swiss chard	5	50	Pigs eat the old and large leaves; people the young and tender small ones. [231]
Garlic	--	3	It is pickled, and is entirely for home use. [351]
Shallot	--	2	Entirely for home use.
Red peppers	--	1-2 stalks	Used with soybean curd, or when one has a stomach ache. [159]

'Miso' is used not only in soups, but as a flavoring for other dishes. 262 - 252
Jūshiimē is rice fried in oil and 'miso', with green onions added. Tōfu-champuru is made by putting shredded bonito and hot lard in a pan, adding a little 'miso' and some soysauce, and one-inch cubes of bean curd, or 'tōfu'. 'Tōfu' was eaten about every three days in Nanahan before the war, and every day about twenty peddlers from Tsukazan went through the countryside selling it. It is eaten not oftener than once a month now.

A strong rice drink, 'awamori', is in evidence at all parties. It is 273
sometimes diluted with orange soda, but more often it is served full-strength flavored with either garlic or red peppers. Before the war the refuse from [231]
making 'awamori', called kashijii, was very cheap---about two gallons could be had for fifteen sen---and was generally fed to pigs. However, it also fur- [257]
nished the base for kashijē-ēi, made by pouring hot water on half-boiled spinach or swiss chard, and adding the liquid from the refuse. It was said to have been very good for the stomach.

Feast Foods When a person reaches the age of 61, 73, or 85, a celebration 262
known as tushibii is held. This is the occasion for a feast of 574
whatever proportions the extended family's budget can afford. In the spring [561]
of 1954 a Nanahan lady who was a member of the dominant family reached seventy-three. The following was served at the feast:

--Paddy taro boiled in sugar syrup
--Soup containing 'konnyaku', pork, tripe, goat meat and ginger
--Giant radish and carrots, shredded in vinegar
--Several slices of fried bean curd
--Fish cake
--Deep-fried sugar batter
--A dish of 'konnyaku', 'daikon', pork and shredded radish
--Deep-fried whale tripe in peanut butter sauce
--Red rice; noodle soup
--Fried bean curd and pork, with seaweed

In addition, guests were given two boxes to take home, which contained the following:

--Two pieces of pork
--1 piece fried bean curd
--Two pieces of fish, deep-fried in batter
--1 piece of pork heart
--Two pieces of fish cake
--A red-dyed hard-boiled egg
--Two pieces of burdock root, deep-fried in batter
--Two pieces of sweet pound cake
--Two pieces of kujimuchi (a rice cake)
--Two large pieces of deep fried sugar batter
--One deep-fried flour dumpling
--Five cakes of baked rice flour, in shapes of the pine, bamboo, plum, crane and tortoise---symbols of longevity.

261 262 Famine Food and Wartime Substitutes The standard famine foods on Okinawa have always been dried sweet potato chips or refuse from the making of starch, sago palm nuts and the pulp of the same palm. The latter two are eaten with restraint, as they contain small [252] amounts of an alkaloid poison. The sweet potato materials are made into soups, and the sago palm provides a type of flour for deep frying, or 'tempura'.

[137] During the last war, soups were also made from the stem of the plant Ligularia Kaempferia, known as 'tsuwabuki' in Japanese, and chiipappā in Okinawan. One Nanahan farmer related, "The chiipappā which I ate in Kin-son during the war was delicious, and one felt better after eating it. When I came back here, I tried our local variety, but it is bitter and inedible." The [252] giant African snail was used to alleviate famine just before the invasion. It was boiled in its shell, then de-shelled and the "snail juice" washed out with a bitter orange called shiisā. The meat was then fried with vegetables and the white part of a leek.

273 177 276 272 Japanese soldiers during the war taught the Okinawans how to make a strong liquor from sugar cane, as no real 'sake' or 'awamori' was then available. Tobacco was also scarce, and pine tree bark was substituted. Some people preferred to smoke the leaves of the 'mogusa' plant, which is also used for cautery. One very poor family in Nanahan still retains the practice. Tea could not be bought in the late pre-invasion period, and the beans of the lantana bush furnished a palatable substitute.

263 Uses of Sugar in the Home When a guest calls at an Okinawan farmer's home, [574] he is served tea, black sugar chunks, and quite often 'awamori'. Many other uses were related. It is used in batter for deep [757] frying; for cure of headache, sickness, and fainting spells; for a hangover; and when food is not delicious.

[6] punishment, the threat to send a child away is not an idle one. Nor is the threat to sell a child. Children are still sold, though poverty is doubtless the principal reason. The use of the threat to sell in dealing with a recalcitrant child undoubtedly has an effect both on the outlook of the child who because of poverty is actually sold and on the attitudes of others toward him.

Physical punishments include such measures as a slap on the buttocks, a sharp blow on the head with the knuckles---especially with the joint of the middle finger protruding from the clenched fist, a pinch on the fleshy part of the thigh. These last two are particularly used by older women and are rather severe so that after a few experiences the child is likely to be impressed by the threat. Instead of putting the child out of the house, a parent or grandparent may confine the child by tying him to a post of the house or tying him and putting him into a box up on the storage shelf on the rafters. [75] Another treatment is to have moxa burned on the skin. This is a recognized medical practice and its use is interpreted as curative rather than punitive.

The following occurred in a family that occupied a quarter of a city house. The mother was told by one neighbor that another neighbor was telling people that she had observed, through a crack in the wall between their sections of the house, the seven-year old son of the first woman kissing his twelve-year-old sister and displaying his genitals to her. The mother was nearly frantic with worry about the story. She confronted her son and asked him what had happened. He said he didn't know. The mother then said, "Mother saw it, so tell me about it." The boy repeated that he did not know what she was talking about. Then she said, "The kami-sama (gods) saw it, so you can't hide it." He remained silent. Then she said, "Tomorrow we'll go to the police station and then maybe we'll find out what happened." The boy continued to remain silent. Nothing at all came of the matter. The mother later concluded that the gossipy neighbor, with whom she was not on speaking terms anyway, may have made the story up. The mother's statement that she had seen what happened was an outright lie and if the story was false the boy must have known it was a lie, or he could easily have concluded that it was a lie from the very manner in which it was said. The threat to take him to the police of course never materialized; it may have been an old one and therefore also recognized as an empty threat. It is possibly significant that the mother questioned the boy rather than his older sister.

A good example of punishment devised to fit the crime is provided by the following incident reported by Lebra. An old woman lived alone with her grandson, a boy of seven or so. The boy was rather mischievous and on several occasions started fires in the house. The grandmother scolded him for it at first but the last time he did it she used more drastic measures. She caught him, tied him to a house-post, tore two long strips of paper, stuffed an end of each up one of his nostrils, and lit a match to the free ends that dangled down at his waist. As the smoke curled up into his nose and the flames licked nearer, he screamed and promised never to play with matches again. Before he was burned the grandmother removed the burning strips of paper. When she was satisfied that he would reform, she untied him. She

a young man would have had no previous sexual experience and that it was felt 585
that it was necessary for him to be instructed by an experienced woman before 178
he had relations with his bride. The third explanation was given by a country 565
woman in her fifties, of gentry descent. She told how her husband had gone to the wedding of a city relative and had been taken afterwards to the juri-nuyaa. She did not know if her husband had been treated to a juri or not but was sure that the groom must have had one. Her explanation of the practice was that it was mainly a display of the position of the family and its ability to provide entertainment. Probably there is a bit of truth in all three explanations. The practice does undoubtedly reenforce the male's right to sexual freedom. The second explanation seems a little weak, especially in view of the reported former practice of the city gentry of combining a sexual initiation with the boy's coming-of-age ceremony, but the explanation may be that given for the earlier trip to the brothel and it may also be the "explanation" of the practice conventionally given, conventional explanations not necessarily revealing real motives. The last explanation, that the practice is mainly a display, probably strikes at the most important motive, the use of entertainment to demonstrate status.

Secondary Marriage Formerly wealthier men sometimes took juri as 837
mistresses. In the village of Yamada before the war, the richest man, or 556
perhaps the only man designated as "rich man" had his own juri. She was a kooi-juri, a "bought juri", that is, he had bought her from the house she had been indentured to. She stayed in Naha, but occasionally came to Yamada. The informant who told of this, a woman in her thirties, expressed the opinion that any man who became rich would naturally soon want his own juri.

At the present time it seems to be a fairly widespread practice for a 595
man who has enough means to have a second wife (yuubee, in Japanese 'nigō', "number two"). Sometimes this is done openly, sometimes secretly. It may be a more common practice today than formerly because of the present skewed sex ratio. Some information was obtained about two such men, one a fisherman and the other a doctor, so-called.

The fisherman was an Itoman man; his first wife had no children so he took as a second wife a woman whose family lived in a town to the north. The second wife has borne three children. The "main wife" (in Japanese 'honsai') stays at Itoman in the house of the man's father, and there she is raising the husband's first son, the child of the second wife. But most of the time the husband is at one of the northern villages with his second wife, her other children, and two boys of junior high school age whom he bought on one of the outer islands to help him in his fishing. Unfortunately I did not learn how the family was registered in the 'koseki'.

The "doctor" was a man from a village south of Naha, who had an office [757]*
at his home and also a practice in Naha. His methods consisted of heat treatments and steam baths. He spent about half the time with his "number two", whom he had set up in a room in Naha. His first wife was presumably unaware of the existence of the second wife, even though he once took the second wife to his home along with a patient, ostensibly as a friend of the patient.

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514 The drum is nearly full and its surface is in constant motion, a seething
343 mass of maggots. One of those men with the carts that cause you to cross
[364] to the other side of the road will come in a few days to dump it, he hopes.
574 He crosses the yard and is invited into the house. He takes off his shoes
751 and steps up onto the floor. It is surprisingly clean, he finds. A mat is
[356] spread and he sits cross-legged upon it. Tea is offered and he accepts, thinking that it must have been made from boiled water. He learns later that he was wrong. He is given a fan and perceives that its function is keeping the flies away as much as it is creating a breeze. In a spirit of friendly cooperation he and Grandfather take turns shooing the flies off the broken chunks of black sugar that have been placed before them. A larger blue-bottle fly enters and someone makes a special effort to chase
[825] it out. Should the visitor be so crude and impolite as to mention flies and in connection with the toilet, it will be pointed out that only the blue-bottle flies are hatched from the maggots in the toilet. The smaller black house-flies simply produce more flies and hence are harmless.

[264] Bananas are served and the peels follow those of the potatoes out onto the ground. Smaller children run in and out. One child comes in with
[515] its nose running. After a time Mother pulls up its shirt tail and wipes the mucus off the upper lip. The child has not been well; Mother or Grandmother
[737] may take it to the yabuu, who will burn moxa on its skin at the proper places. A neighbor's child walks by; its face and nearly hairless head are
[753] a mass of scabs and its eyes are almost shut by pus. Someone laughingly explains that this is what happens when you don't cut a baby's buttocks properly with a razor to draw out the bad blood.

The visitor is urged to take more tea and sugar. He is complimented on his interest in Okinawa and is asked innumerable questions about America. The family is eager for knowledge and for further contact. As he rises to leave, he is urged to return. He puts on his shoes, finding one slightly
[753] damp from the poor aim of the youngest child. He is cautioned to wear his hat and knows by now the unspoken fear---encephalitis---caused by too much
[296] exposure to the sun. He notices that around the well where Mother has been doing laundry a great pool of water is gradually sinking into the sand. As he picks his way across the yard he wonders if the family would not be better off living in a houseboat, preferably in a fast-moving stream.

751 Such are some of the features of Okinawan life. Yet it would be a mistake to assume that there are no standards of sanitation. There are, they
356 are simply narrower than those of most Americans. Many Okinawans do throw
751 garbage out their front doors as indicated above, but it is also true that the floor of the house is usually cleaner than many American floors. It has to be clean; people sit on it and sleep on it. People take off their shoes before stepping up onto it or if they have been to the fields barefooted
751 they may wash their feet before stepping up onto it. But the area of cleanliness ends with the step. Beyond the step is a different sort of territory.
[351] Yet even in the yard there is a limit to the amount of trash that may be al-
[514] lowed to accumulate before it is swept away. The practice of urinating in the yard is distasteful to the American observer, but there is perhaps less basis for objection to it as a health hazard. Urine is relatively harmless. Feces, however, go into the toilet. If an untrained child defecates in the yard usually someone cleans up the spot.

Although Okinawans occasionally refer to Heaven or the Gods of Heaven (J. 'Ten no kami-sama'; Okinawan U-kami-ganashii, etc.), the concept does not seem to be well defined. The clearest statement heard on the subject was the one just mentioned in connection with the Fire God. Since the dead, or some of them, rise to Heaven, the term "Gods of Heaven" may include them, but there are evidently other greater beings too. These may be identical with the figures of the native origin myth. But aside from a few enthusiasts, mainly local historians and shamans (yuta), few Okinawans seem informed about or concerned with native cosmology, or any other. This may in part be the result of a generation or so of Japanese education with educators attempting to take the Japanese mythology seriously and making Okinawan mythology jibe with it. But it is more likely that this lack of concern with Heaven is due rather to an old tendency common in East Asia to settle matters at the local level without bothering the higher authorities, in dealing with both political problems and spiritual problems.

In the Okinawan universe there are also a few earthly beings with supernatural power. The akamataa is a real species of non-poisonous snake. But it is believed to be able to change itself into a handsome young man, in which form it seduces unwitting young women. One young woman who was seduced is said to have given birth to a whole tubful of baby akamataa.

The kijimunaa is a wholly mythical being but seems to belong more in the natural world. According to some it lives in old trees, but according to others it is a sea-being who lives on fish and shellfish and who will become the helper of a fisherman who makes friends with it. Regardless of habitat, the kijimunaa is believed to approach a sleeping person and sit on his chest, nearly suffocating him and preventing him from crying out. Apparently the being is not dangerous but merely annoying.

Another being that is feared is the tamagai or 'hidama', "fireball". This was described in Yamada as a light that appears at certain times as an omen. However, in a village in Southern Okinawa it is regarded as the cause of fire. Since it is a female being the young men of this village drive it away by forming a procession and marching through the village shouting "Hoo hai!" ("Your vulva's showing.")

The Itoman people speak of the ja or 'ryu', the "dragon". This being lives in the sea or the clouds; its tail is the whirlwind; its feces, if one is fortunate enough to find them; are like coal tar and are a very valuable medicine. Other Okinawans seem to regard this as something only the Itoman people know about.

One more concept is perhaps worth mentioning; this is shiji. Certain places, the sacred hilltop of the village, etc., are said to be shiji-dakasang, "high in shiji", and therefore to be approached with respect. It is also said of persons, especially those believed to be destined to become religious practitioners. The term shiji evidently signifies a sort of supernatural power that adheres to places and people, perhaps like the Oceanian concept "mana". Haring has suggested that the Japanese concept

769 of the child; the child prays several times a year, on the important occa-
753 sions, at the ancestral tablets of the adopted parent, but otherwise lives as before. The rationale of this practice may be: if one set of ancestors is not sufficient for the child, why not give him another?

753 Also related to the concept ugvambusuku is the notion that certain
828 persons are destined to do more than just make offerings; some are to become
794 kaminchu, "god persons", and play the principal roles at the family worship at the important holidays. If these persons shirk this duty they may become ill as a consequence. In certain persons, particularly older women, persistent illness and especially mental illness may be interpreted as a sure sign that the afflicted person ought to become a kaminchu. There is one well-recognized type of mental illness called 'kami-buri'; the person with this disorder constantly makes the gestures of prayer toward various persons and objects in an extravagant manner. Such a person is almost sure to become a religious practitioner after recovery. In fact some kaminchu positions must
[756] be filled by persons who have had 'kami-buri'. The yuta may also receive his, or more often her, vocation through such an illness. (Recently a visiting psychiatrist commented on the low number of cases at the Kin mental hospital. There are of course many cases that are not committed to the institution because Okinawan society has a place for them; they become its psychiatrists.)

Other concepts of disease will be discussed in the next section.

4. Medical Practice

755 Home Remedies There are a number of home remedies that are known to many
757 persons, especially older women. These include the use of certain herbs, the letting of blood, the use of salt, prayer, swearing for exorcism, spells. These methods of treatment may be used by any old woman to the extent of her knowledge, but if the illness appears to be too serious for these treatments a professional medical practitioner may be consulted. However, the distinction between the professional person and the skilled amateur is not always clear.

757 Herbs are used for digestive disorders and particularly for female
824 disorders. Tawada in his description of Okinawan flora[1] lists ten plants used for medicinal purposes, nine of which are said to be useful to female disorders along with a variety of other things ranging from toothaches to appendicitis.

757 Blood-letting is practiced on most infants as a cure for skin eruptions and is sometimes also used on adults. Shallow incisions are made with a razor to let out the "bad blood". These are made on a baby's buttocks and sometimes, though less frequently at the present time than in the past, on the face of an adult.

755 Salt is used for purification. A yuta whom I saw exorcise a house and yard took salt into his mouth and then spit it and threw it in the

1 Tawada, 1951.

direction of some tombs in order to prevent the ghosts from coming into the yard. I have also seen a woman who had some training as a nurse throw salt over a hospital patient who had just had a major operation; this was, she said, to cleanse the patient and the bed. Salt is also used as a home remedy for stomach disorders. A mother or grandmother may rub salt on the navel of a child suffering from a stomach ache. According to a small boy who received this treatment, it works. 755 767

Prayers are directed toward the supernatural beings who may help one overcome an illness. Curses and spells are directed toward malevolent beings, usually ghosts, when they are the cause of illness. Spells (mannaa, Japanese 'majinai') are verbal formulae that have a magical effect. Persons who are known to know spells and who may be asked to use them for the benefit of others are called mannaasaa ('majinai suru hito'), but spells seem to be useful only for a few diseases and so there is probably little specialization in their use. 782 755

To indicate something of the mixture of the natural and the supernatural (to use Western categories) in the treatment of illness in the Okinawan home, I have appended a description of the notions about and treatment of a few diseases as observed and as described by informants. These are all skin ailments. 755 757

1. Kamigasaa A kasa (skin eruption or rash) caused by kami (gods). 755 757

a. Irigasaa Identified as the same as the Japanese 'hashika' (dictionary translation, "measles"). This disease is caught only once, usually as a child. One must catch it before he becomes a complete person ('ichininmae'). Because children sometimes die of it, parents worry before they have caught it but are eager to have it over with. There are lighter and heavier "requests" ('o-negai') so that if a child has a "light request" the parents of other children may bring them in to lie beside the sick child and eat what food he leaves in order that they may contact the disease. But the disease is given by the god and therefore the other children get it only if they were meant to do so. 753 [164]

The disease begins with a fever and then a rash appears on the head and moves downward. If the rash does not appear the fever may rise and therefore parents worry if the rash is delayed. If there is no rash visible it may be that the rash is on the inside unable to get out and thus is causing the fever. This is dangerous.

Careful treatment is essential. The god comes around to see how the patient is being treated; if the family is not watching the child carefully, the god makes the disease worse. In a case observed, the mother kept the child in bed covered with a thick quilt and mosquito net and sat beside him, fanning him almost continuously. Polite language is also necessary in order not to offend the god.

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757 mijinaarii ("water-stroking") is performed. It must be performed at the
753 time of day when the tide is beginning to ebb. In the case observed it was performed by the child's maternal grandmother. The old woman first placed a cup of water before the incense-burner representing the Fire God, lit two sticks of incense and placed them in the burner, and prayed. Then she took the water and applied it to the child's forehead and cheeks, stroking lightly downward. The prayer, explained later, went, "A Dog boy (i.e. a boy born in the Year of the Dog) has a request of irigasa-ganashii (term of respect); today I perform the third day water-stroking and so I beg that you make him well."

During the period when the rash is present and perhaps for a few days after, the child ought not to be bathed or even have his face washed; water, except for that used in the "water-stroking", is harmful to the patient. During the course of the disease and for about a month after, the child must not be permitted to eat heavy or fatty foods; these would cause a congestion in the child's throat which might become dangerous.

(In the case observed I asked if it were not true that light might hurt the sick child's eyes; it was agreed that this was said to be true, but it seemed to be distinctly a secondary consideration. The question, in fact, led to a discussion of the decline in the practice of keeping doors tightly closed in order to keep out ghosts.)

b. Mijigasaa, "water rash", a second type of kamigasaa. It is also caused by a god, but it is not as serious. It may be caught two or three times. The eruptions contain a fluid, hence the name. The rash spreads if the fluid touches other parts of the body, so the eruptions are covered with sweet-potato starch when they begin to run. Treatment also includes "water-stroking" and certain food restrictions while the rash is present.

2. Kaji-ooraa-kasa : rash accompanied by itching but no running. It may be caught by either a child or an adult. It is caused by yanakaji ("bad winds", i.e. ghosts). It may be contracted either while out walking in the hills or while at home. This disease must be treated unkindly; the patient should be sworn at and slapped. The itching may be stopped by the use of a pair of 'zōri' (a Japanese style sandal). The person who knows how to perform the treatment first heats the 'zōri' over a fire and then while uttering a spell (mannaa, Japanese 'majinai') he rubs their undersides over the face and body of the afflicted person. He then takes the 'zōri' to a crossroads and puts them in the middle where someone will step on them. This will stop the itching.

An incident was related where this disease was confused with the first one described. At the end of the war, in Ishikawa, an old man of 75 became ill and broke out in large pox. His family believed his disease was caused by yanakaji so they gathered around him and shouted curses ("Eat feces", etc.) at him to chase the yanakaji away. But the old man merely got worse. Then they consulted a yuta and were told that the illness was

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not caused by ghosts but by a god and therefore they should speak politely. They did so and the old man recovered.

3. Tangasa A rash with running eruptions, which may be contracted by both children and adults. It begins at the nape of the neck or at the base of the spine. If it spreads all the way around the neck or trunk the patient is in danger of losing his life. One ought not to say the name of this disease and so instead of saying tangasa, people say naa-iramnuu-gasa, "the rash that is not called by name".

A person with this disease may be treated by a mannaasaa (spell-worker, in Japanese, 'majinau hito'). The patient is taken to the mannaasaa early in the morning. The mannaasaa, before drinking morning tea even, takes a full puff of tobacco, blows it on the affected spot, and recites a spell. He must say the words without taking a breath and without making a mistake for them to be effective. The words are addressed to the disease, which is probably caused by ghosts.

4. Heegasaa From hee, "skin"; a condition in which the face and scalp become a mass of scabs and the eyes matter. The condition occurs in both children and adults, but seems more common among smaller children. It is treated in small children by blood-letting (hanchuung, in Japanese 'sakuru'). Most infants are said to be bled for breaking out on the buttocks. The buttocks are cut with a razor blade just enough to draw blood. If heegasaa develops it is because the bad blood has not all been drawn out, and so the treatment may be repeated. If the bad blood is not drawn out in childhood the condition may become much worse in adult life. (The mild condition for which infants are bled looks to me like what would be called "diaper rash" in America. The heegasaa is a truly hideous condition which afflicts a number of small children and a few older persons. One of the UCLAR medical officers referred to it as "scruff" and expressed the belief that it could be checked in its early stages with a frequent application of warm water and soap. Once it gets started, however, exposure to dirt and flies must make improvement difficult. One case encountered by Lebra had continued for several years. An informant mentioned cases from before the war that had lasted from childhood into adult life; two brothers had heegasaa so that they could not go to school, could not marry, and did nothing but stay at home and scratch themselves. It was said that even more than they feared policemen, they feared flies. This informant believed their condition was caused by their not having been properly bled when children; another informant suggested congenital syphilis.)

5. Ha'imakaa A kind of rash that may be caught by a person who happens to pass by a tree called makaa. This tree causes the illness, but not to persons who have the Okinawan name (warabinaa) of Makaa. Therefore a person not so named who sees that he is passing a makaa tree will say, "I am named Makaa too, so if you give it to me I'll break your neck." If this fails and he contracts the illness, he may go back and tie rocks to the limbs of the tree so that they bend down, and repeat his threat.

Other Diviners Besides the sanjinsoo there are several other types of diviners, such as palmists, physiognomists, and card readers. Some of these combine prayer and supposed reliance upon supernatural powers with their science. For example in Ishikawa there is a young woman who is referred to as a kaminchu-gwaa or yuta-gwaa, though neither term is very apt. She is consulted about the character and future of individual persons. Her performance consists of asking the birth year of the person in question, praying, and then dealing out a fortune from a pack of playing cards of an archaic type. She charges ¥30 for each person inquired about. As with the true yuta illness may be a matter on which she is consulted.

Like the sanjinsoo, these persons are found mainly in the larger towns and cities, where it appears that they manage to make a living. Whatever the law reads on the matter the police and the public evidently regard these professions as legitimate as long as the practitioners are sincere in their work. There was a famous case in Ishikawa about 1951, however, where two young women set up an establishment as diviners. They are said to have given advice free to the needy at first and built up a large clientele, whereupon they began overcharging their wealthier customers and spending the money on riotous living. Finally the police put a stop to their activities, charging them with giving advice in an irresponsible manner.

The Yabuu The term yabuu seems to be derived from the Japanese 'yabu-isha', literally "bush-doctor", defined by the dictionary as "quack". The Japanese and English terms, however, reflect attitudes that are probably not associated with the Okinawan yabuu. The yabuu is a practitioner of 'Kanpōi', "Chinese Medicine", a term that was once coordinate with 'Rampōi' "Dutch Medicine", that is, modern Western (and now modern Japanese) medicine. The methods of the yabuu include moxibustion, acupuncture, and the prescription of various foods.

Moxibustion (Japanese 'o-kyū') is the burning of 'mogusa' or "moxa" on the patient's flesh. On an occasion which I observed, a woman brought a child of two or three to be treated. The yabuu took out his charts of the body, which, he explained, showed where the nerves may be reached. The theory seems to be that the burning activates the nerves and causes the body to throw off the illness. In this case the child seemed to be suffering from some internal disorder. Its body bore the scars of previous treatment. The yabuu, after consulting his chart, painted four dots on the child's bare back with a red liquid. Then he wetted a finger and put on each dot a tiny bit of 'mogusa' and with a lighted punk lit each bit, let it burn down to the skin, and then tamped it out. His wife then wiped off the ashes, leaving a small black scar where each dot had been. He then burned six more spots on each side of the child's chest, four around the navel, one on each ankle and one on each wrist. Throughout the procedure the child cried and had to be restrained by its mother. The scars, however, are said not usually to be permanent.

Acupuncture consists of inserting into the flesh a long gold needle ('kimbari'), usually at the afflicted spot. It is used, for example, to relieve the stiffness of the hips associated with childbirth.

759 The yabuu also prescribe herbal remedies. They do not, however,
• 757 prepare their medicines, but rather instruct the patient how to gather and
[228] prepare the plants for use. The act of preparing one's own medicine may thus have a magical value. Yabuu also prescribe the eating of certain parts of certain animals for their good influence on the corresponding parts of the human body. Dogs and cats are among the animals so used. (This practice may be the source of the belief widespread among Americans on Okinawa that the Okinawans eat dogs; they do, on rare occasions, but not as food, merely as medicine.)

759 Short-cut Systems Standing somewhere between the yabuu and the modern doctor are several types of practitioners who give treatments with heat, light, steam, etc. as all-purpose cures. One man was observed to use a tube in which he burned a substance, probably moxa, while he moved it over the patient's body. His system seemed to be the moxibustion of the yabuu dressed up with "scientific" gadgets. He was described by a friend as "half-doctor half-yabuu", a description that was meant to elicit a favorable response since it implies that he possesses the efficacy of both.

759 In addition to these full-time professionals on the fringes of medi-
278 cine, there are also a number of part-time penicillin-shooters, who are par-
[164] ticularly active in areas frequented by American personnel, where they are in demand for the treatment of venereal disease. Penicillin is sold freely and in quantity, perhaps because of the prevalence of venereal disease, and has become a very popular treatment even for very minor infections. Hormone shots also seem to be widely used by untrained persons.

759 Modern Medicine There are of course modern Japanese-trained doctors on
[177] Okinawa. But they are relatively few in number, about one for every 3,900 persons.[1] Trained nurses and medical facilities are also too few and too little. But even if there were more doctors and more facilities, it is doubtful that the ordinary Okinawan would make more use of them.

759 Medical doctors have a high status in Okinawan society. They are
753 admired and respected. Parents frequently express the wish that a son
829 might grow up to become a doctor. But the advice of the doctor is not al-
[534] ways heeded. The respect may be more for his education and the social position it gives him than for his professional opinion. In the matter of illness the advice that the ordinary Okinawan respects is more likely to be that of the older members of his own family and of the familiar yuta, sanjinsoo, and yabuu, for this advice is given in terms of insufficiency of worship, soul-loss, and the influence of the twelve-year-cycle. These are concepts that are familiar to him and have an integration with other beliefs, which the concepts dealt with by the doctor do not have. The doctor's very disregard of the supernatural runs counter to the feelings of the

[1] CAARI, Vol. 1, no. 2, p. 52 gives 126 practicing physicians for Okinawa plus 50 working for GRI. Japan has about one for every 1300 persons; Japan Statistical Yearbook, 1950, gives 63,273 (p. 432) and the total population as 80,216,896 (p. 12).

753 177 that I found the greatest resistance to any suggestion that American methods might have equal or greater validity. American material culture the Okinawans are delighted to accept, and they are eager for more. American social [562] relationships they look somewhat askance at but they are willing to experiment, in a small way, with equal rights for women. But the suggestion that medically they don't know what ails them is harder to take. They are willing to accept modern medical explanations of disease as a partial explanation, perhaps as the occasional means by which the ultimate causes affect disease. The ultimate causes are supernatural.

753 177 769 182 To challenge the concept ugwambusuku, the insufficiency of worship that causes illness, is to challenge the present structure of religion, and at a point where it is most closely bound to social organization. Anxiety over insufficiency of worship and its possible consequences is probably the strongest force motivating the whole range of activities connected with death, burial, and the worship of ancestors. It is not too far-fetched to suggest that it is also a reason for respecting one's elders during their lifetime. It is no wonder that Okinawans show a strong resistance to any challenge to these beliefs, even though they may not be conscious of all the implications of the challenge.

753 177 757 To challenge the whole structure of belief would probably be wholly unsuccessful. Or if somehow the Okinawans could be persuaded to abandon these beliefs at once, the result would probably be either chaos or the uncritical acceptance of another set of beliefs that might soon prove to be just as far out of line with medical science as the present. Probably the surest way to introduce modern medical concepts is by gradually whittling down the native concepts beginning with the more peripheral ones. This is not as hopeless as it might seem, for some changes have already taken place. [846] Until recently women after childbirth were baked for about a week over a fire in the jiiru, a hearth in the back room of the house, even in hot weather. It is said that it was a very uncomfortable experience and that in warm weather it often resulted in rashes and boils, yet it was practiced because it was thought to be necessary for the health of the woman. In the last few years this practice has been abandoned. One woman informant was positive that the hideous skin condition called heegasa or "scruff" could be prevented by drawing out the "bad blood", but she was equally positive that the former practice of baking a new mother was useless if not harmful. Some day she may become convinced that cutting an infant's buttocks with a razor is useless if not harmful. She will be convinced when someone has demonstrated to her that heegasa can be prevented by another means and that because the blood circulates it is no more "bad" at one place than another. The concept "bad blood" is a peripheral one, with no close relationship to religion or social organization.

Other peripheral beliefs are those associated with the yabuu, the efficacy of moxa and the golden needle of acupuncture. In demonstrating the superiority of modern medicine over these techniques one may not always count on the cooperation of educated Okinawans. In opposing the practice of [181] the yabuu and other practitioners one runs counter to one of the strongest themes of Okinawan culture---one must not interfere with another's livelihood.

52 The general characteristics of the changed entertainment patterns
198 have been a greater reliance on entertainment provided by sources outside
621 the village---the school, radio, movies---and a sharp decline in celebrations and festivals of the sort which emphasized village participation and unity.

Health and Medicine Changes in medical practice well illustrate the
757 principle that material things find more ready acceptance than ideas in the
753 diffusion of culture; in short, Okinawans have been willing to adopt modern
177 medicine when available, but not modern medical principles. Pills, shots, surgery, dentistry, penicillin, and DDT have found acceptance, while modern scientific concepts of disease, health, and sanitation seem to have made relatively little headway. The germ theory, for example, has barely penetrated.

753 However, on talking to people of different ages one becomes aware
751 that many changes in standards of sanitation and ideas about health and dis-
177 ease actually have taken place in the last fifty years. For example, evidence of the practice of tattooing various parts of the body as a cure for certain ills is rarely seen on persons under seventy. Similarly, though many of the younger generation may appear abysmally ignorant of modern knowledge of disease, they are always less ignorant and better informed than the preceding generation. Considerable progress toward better sanitation was made under the
[364] Japanese. Formerly the Okinawan privy was built atop the pigpen, and the pig
[231] subsisted in part on human feces. Stern measures were required to force the abandonment of this practice. The Japanese also introduced monthly sanitation inspections; inoculations for babies and school children were made compulsory.
[515] Through the influence of the schools the toothbrush (usually one) became a
[582] part of every home. The Japanese also sent notable scholars into the countryside to lecture the people on the dangers of in-breeding practices, particularly kin-group endogamy.

757 Penicillin, which was introduced by the Americans, has become a pop-
177 ular treatment, achieving equality with moxacautery and cutting to let blood. It can be obtained easily at any drug shop, and every doctor, midwife, herbalist, and practitioner of any sort is prepared to administer shots. Reliance excessive even by American standards is placed on this drug. There seems, in fact, to be a fondness for shots which does not end with penicillin; hormone shots and various other injections are widely advertised. It is the opinion of the author that any type of modern medicine which cuts, punctures, or otherwise disfigures the skin will find ready acceptance; this, it is felt, is merely an extension of the tradition of acupuncture, moxacautery, tattooing, and cutting. Bettelheim states that in the 1850's the Okinawans made inquiries as to how inoculations for smallpox might be obtained.[1]

759 There is some indication that the yabu, a practitioner whose chief
178 stocks-in-trade are herbs and moxacautery, is slowly disappearing; in several communities the author was told that since the old yabu died there had been no replacement.

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[1] Bettelheim, B. J., Loochoo Mission, London, n.d., pp. 34-36.